



State of Utah

Department of
Environmental Quality

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Executive Director

DIVISION OF AIR QUALITY
Richard W. Sprott
Director

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Lieutenant Governor

DAQE-IN1315006-04

March 23, 2004

Brian Barnard
Thermo Fluids Incorporated
1710 West 2600 South
Woods Cross, UT 84087

Dear Mr. Barnard:

Re: Intent to Approve: Increase Storage Tank Throughput of Used Antifreeze from 50,000 gallons to 2,000,000 gallons, Davis County, CDS B; MAINT; HAPs
Project Code: N1315-006

The attached document is the Intent to Approve (ITA) for the above-referenced project. ITAs are subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Nando Meli. He may be reached at (801) 536-4052.

Sincerely,

Rusty Ruby, Manager
New Source Review Section

RR:NM:jc

cc: Davis County Health Department
Mike Owens, EPA Region VIII

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**INTENT TO APPROVE: INCREASE STORAGE TANK
THROUGHPUT OF USED ANTIFREEZE FROM 50,000
GALLONS TO 2,000,000 GALLONS**

**Prepared By: Nando Meli, Engineer
(801) 536-4052
Email: nmeli@utah.gov**

INTENT TO APPROVE NUMBER

DAQE-IN1315006-04

Date: March 23, 2004

**Thermo Fluids Incorporated
Source Contact
Brian Barnard
(801) 296-6611**

**Richard W. Sprott
Executive Secretary
Utah Air Quality Board**

Abstract

Thermo Fluids, Inc. (TFI) operates a used oil and antifreeze recycling plant. The recycling process consists of blending, filtration and oil physical separation. No heating, chemical addition, nor cracking occur at the plant. TFI has requested approval to increase the amount of used antifreeze and used oil throughput at TFI's Woods Cross plant. On a 12-month rolling average the antifreeze will be increased from 50,000 gallons to 2,000,000 gallons and the used oil will be increased from 10,950,822 gallons to 15,000,000 gallons. Used antifreeze and oil is generated in large quantities by many of TFI's clients. TFI collects the used antifreeze and oil as part of the services offered to its customers. The calculated air emissions from used antifreeze throughput will increase ethylene glycol by 1.39 lbs/year and from the used oil recycling they will increase VOC by 0.10 tons per year (tpy).

There is a New Source Performance Standard for the equipment at this plant, under 40 CFR 60.110b to 60.117b [Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Vessels) for which construction, reconstruction, or modification commenced after July 23, 1984]. However, the standard's regulations do not apply to the equipment at the plant since all of the plant's tanks were constructed, reconstructed or modified prior to the standard promulgation date, July 23, 1984, and because the true vapor pressure of the petroleum liquids stored at this facility are less than 0.5 psi. Standards for Hazardous Air Pollutants regulations do not apply to this source. Title V of the 1990 Clean Air Act does not apply to this source.

The plant is located at 1710 West 2600 South, Woods Cross, Davis County. Davis County is a Maintenance area of the National Ambient Air Quality Standards (NAAQS) for Ozone. The changes in emissions will result in the following potential to emit totals: $PM_{10} = 0.20$ tons per year and $VOC = 0.38$ tpy, and $HAPs = 1.75$ lbs per year.

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-4. A notice of intent to approve will be published in the Salt Lake Tribune and Deseret News on March 26, 2004. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-4. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

General Conditions:

1. This Approval Order (AO) applies to the following company:

Site Office

Thermo Fluids, Inc.
1710 West 2600 South
Woods Cross, Utah 84087
Phone: (801) 296-6611
Fax: (801) 296-6385

Corporate Office Location

Thermo Fluids, Inc., a Thermo Retec Company
4301 West Jefferson Street
Phoenix, Arizona 85043
(602) 272-2400
(602) 272-3411

The equipment listed in this AO shall be operated at the following location:

1710 West 2600 South, Woods Cross, Davis County

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4523.65 kilometers Northing, 422.40 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.
5. All records referenced in this AO which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:
 - A. Used oil throughput Three years
 - B. All other records Two years
6. Thermo Fluids, Inc. (TFI) shall conduct its operations of the used oil recycling plant in accordance with the terms and conditions of this AO, which was written pursuant to TFI's Notice of Intent submitted to the Division of Air Quality (DAQ) on October 1, 2003, and additional information submitted to DAQ on February 4, 2004.
7. This AO shall replace the AO (DAQE-484-01) dated June 22, 2001.
8. The approved installations shall consist of the following equipment or equivalent*:
 - A. Tank Farm #1 consisting of the following storage tanks (at ambient air temperature):

One FO-1, vertical with fixed roof, 87,812 gallons, for on-spec oil, built in 1975

One OW-2, vertical with fixed roof, 20,368 gallons, for oily water, built in 1975

One AF-3, vertical, open, 20,368 gallons, for antifreeze, built in 1975

One SW-4, vertical with fixed roof, 27,073 gallons, for storm water, built in 1975

One DT-2, vertical with fixed roof, 27,073 gallons, for used oil, built in 1975

Two DT-5 and DT-6, vertical with fixed roof, 30,404 gallons, for used oil, built in 1975

Two DT-7 and DT-8, vertical with fixed roof, 30,404 gallons, for used oil, built in 1975

B. Tank Farm #2 - Central Tank Farm - consisting of the following used oil storage tanks (at ambient air temperature):

Two DT-9 and DT-10, vertical with fixed roof, 21,330 gallons, built in 1951,

One DT-11, vertical with fixed roof, 19,905 gallons, built in 1971

Three DT-12, DT-13 and DT-15, vertical with fixed roof, 19,905 gallons

One DT-16, vertical, with fixed roof, 16,055 gallons, for used oil

Four DT-17, DT-18, DT-19, and DT-20, vertical, with fixed roof, 12,078 gallons

One DT-21, vertical, with fixed roof, 11,376 gallons

One DT-22, vertical, with fixed roof, 20,679 gallons

Three DT-23, DT-24, and DT-25, vertical with fixed roof, 21,330 gallons

C. Tank Farm #3 consisting of the following tanks used for used oil storage at ambient air storage temperature:

One DT-29, vertical with fixed roof, 20,368 gallons

Three DT-30, DT-31, and DT-32, vertical with fixed roof, 19,905 gallons

One DT-33, vertical with fixed roof, 20,368 gallons

Two DT-34 and DT-35, vertical with fixed roof, 12,796 gallons, existing,

D. API (American Petroleum Separator) for oil separation from the storm water runoff (without heating).

* Equivalency shall be determined by the Executive Secretary.

Limitations and Tests Procedures

9. Visible emissions from the following emission points shall not exceed the following values:

- A. All used oil recycling and antifreeze recycling emission points - 10% opacity
- B. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

10. The following production/throughput limits shall not be exceeded:

- A. 15,000,000 gallons of used oil recycling per rolling 12-month period,
- B. 2,000,000 gallons of used antifreeze recycling per rolling 12-month period,

Compliance with the limitations shall be determined on a rolling 12-month total. The owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Production/throughput shall be determined by examination of maintenance records, which shall be kept on site. The records of production/throughput, and used oil (delivered to the site) analysis reports shall be kept on a daily basis.

Records & Miscellaneous

11. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.
12. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

Under R307-150-1, the Executive Secretary may require a source to submit an emission inventory for any full or partial year on reasonable notice.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent

(NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the following web site:

<http://www.airquality.utah.gov/>

The annual emission estimations below include fugitive emissions, fugitive dust, road dust, and do not include point source, tail pipe emissions, grandfathered emissions etc. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, nonattainment area, maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for this source (the entire plant, or specify what portion) are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	0.20
B.	VOC.....	0.38
C.	HAPs	
	Ethylene Glycol.....	0.001
	Total HAPs.....	0.001

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

Sincerely,

Rusty Ruby, Manager
New Source Review Section